IN THE CLAIMS

The following is a complete listing of the claims, which replaces all previous versions and listings of the claims.

1. (currently amended) A lamination for a motor stator, comprising:

a central aperture configured to receive a rotor;

a plurality of slots disposed concentrically about the central aperture for receiving a plurality of stator windings;

an outer periphery defining a generally square cross section having chamfered corners; and

a plurality of convective cooling ducts disposed between the slots and the outer periphery and extending longitudinally between ends of the lamination, the cooling ducts including ~~at least one center duct disposed about vertical and horizontal centerlines of the frame, and~~ at least one corner duct disposed in each of the chamfered corners between the center ducts, ~~wherein~~ the corner ducts ~~include~~ <u>including</u> at least one cantilevered fin for increasing a convective surface area within the corner ducts<u>, wherein the cantilevered fins are configured to reduce air flow through the corner ducts by approximately three percent in a motor during operation</u>.

2-4. (canceled)

5. (currently amended) The lamination as recited in claim ~~1~~ <u>37</u>, wherein the center ducts and the corner ducts are configured to provide forced convective heat transfer from the lamination during operation to reduce overall temperature differentials in the lamination.

6. (currently amended) The lamination as recited in claim ~~1~~ 37, wherein the at least one center duct includes a plurality of center ducts disposed at mirror-image locations about the respective vertical and horizontal centerlines of the frame.

7. (currently amended) A lamination for a motor stator for use in a motor, comprising:

a central aperture configured to receive a rotor;

a plurality of slots disposed concentrically about the central aperture for receiving a plurality of stator windings;

an outer periphery defining a generally square cross section having chamfered corners; and

a plurality of convective cooling ducts disposed between the slots and the outer periphery and extending longitudinally between ends of the lamination, the cooling ducts including at least one center duct disposed ~~about~~ across a vertical ~~and~~ or horizontal ~~centerlines~~ centerline of the frame, the at least one center duct having a major axis substantially perpendicular to the respective centerline, and at least one corner duct disposed in each of the chamfered corners between the center ducts, each of the corner ducts including at least one fin for increasing a convective surface area within the corner ducts;

wherein the center ducts and the corner ducts are configured to force flow through the center ducts.

8. (canceled)

9. (canceled)

10. (original) The laminate as recited in claim 7, wherein the center ducts and the corner ducts are configured to force flow through the center ducts.

11. (original) The lamination as recited in claim 7, wherein the fins are configured to balance flow through the cooling ducts to reduce overall temperature differentials in the lamination during operation of the motor.

12. (original) The lamination as recited in claim 7, wherein the center ducts and the corner ducts are configured to provide forced convective heat transfer from the lamination to reduce overall temperature differentials in the lamination during operation of the motor.

13. (currently amended) A motor comprising:

a laminate frame comprising a central aperture, a plurality of slots disposed concentrically about the central aperture for receiving a plurality of stator windings, an outer periphery defining a generally square cross section having chamfered corners, and a plurality of convective stator cooling ducts disposed between the slots and the outer periphery and extending longitudinally between ends of the lamination, the stator cooling ducts including at least one center duct disposed about vertical and horizontal centerlines of the lamination, and at least one corner duct disposed in each of the chamfered corners between the center ducts, wherein the at least one corner duct includes at least one fin for increasing a convective surface area in the corner duct;

a rotor disposed in the central aperture of the lamination and supported for rotation therein, the rotor including a plurality of rotor cooling ducts extending longitudinally therethrough; and

a fan configured to force convective air flow through the cooling ducts during operation;

wherein a gap is defined between the rotor and an inner periphery of the lamination, and wherein the cooling ducts are configured to force convective air flow through the rotor cooling ducts and the gap during operation such that approximately three percent of the air flow passes through the gap during operation.

14-16. (canceled)

17. (original) The motor as recited in claim 13, wherein the at least one center duct includes a plurality of center ducts disposed at mirror-image locations about the respective vertical and horizontal centerlines of the lamination.

18. (original) The motor as recited in 13, wherein the corner ducts and center ducts are configured to force air flow through the center ducts.

19. (currently amended) A method of manufacturing a lamination for a motor stator, comprising:

forming a plurality of convective cooling ducts between an outer periphery of the lamination defining a generally square cross section having chamfered corners and a central aperture of the lamination, the cooling ducts including ~~at least one center duct disposed about vertical and horizontal centerlines of the lamination, and~~ at least one corner duct disposed in each of the chamfered corners between the center ducts, ~~wherein~~ the at least one corner duct ~~includes~~ including at least one fin for increasing a convective surface area in the corner duct, wherein the fins are configured to reduce air flow through the corner ducts by approximately three percent in a motor during operation.

20. (canceled)

21. (canceled)

22. (currently amended) The method as recited in claim ~~19~~ 43, wherein the center ducts include a plurality of center ducts disposed at mirror image locations about the respective vertical and horizontal centerlines of the lamination.

23. (currently amended) A method of cooling a motor comprising a plurality of laminations each having a central aperture configured to receive a rotor and an outer periphery defining a generally square cross section having chamfered corners, comprising:

providing a forced air flow to the laminate motor;

routing the forced air flow through a plurality of convective cooling ducts located between the central aperture and the outer periphery, wherein the cooling ducts comprise at least one center duct disposed about vertical and horizontal centerlines of the lamination, and at least one corner duct disposed in each of the chamfered corners; and

dissipating heat in the air flow via at least one cantilevered fin disposed in each of the corner ducts;

wherein a gap is defined between the rotor and a periphery of the central aperture, and wherein the cooling ducts are configured to force convective air flow through a plurality of rotor cooling ducts and the gap such that approximately three percent of the air flow is routed through the gap during operation.

24. (original) The method as recited in claim 23, wherein routing comprises forcing via the configuration of the center ducts and the corner ducts a portion of the air flow through the center ducts.

25. (canceled)

26. (canceled)

27. (currently amended) A method of cooling a motor comprising a plurality of laminations each having a central aperture configured to receive a rotor and an outer periphery defining a generally square cross section, comprising:

providing a forced air flow to the motor;

routing the forced air flow through a plurality of convective cooling ducts located between the central aperture and the outer periphery, wherein the cooling ducts comprise at least one center duct disposed about vertical and horizontal centerlines of the lamination, and at least one corner duct disposed in each of the corners;

forcing via the configuration of the center ducts and the corner ducts a portion of the air flow through the center ducts; and

balancing the air flow through the cooling ducts via at least one cantilevered fin disposed in at least one of the corner ducts, wherein balancing the air flow results in approximately thirteen percent of the forced air flow to be routed through the center ducts.

28. (currently amended) The method as recited in claim 23 ~~26~~, comprising balancing the air flow through the cooling ducts via the fin.

29. (original) The method as recited in claim 23, comprising balancing the air flow through the cooling ducts via the configuration of the corner ducts and the center ducts.

30. (original) The method as recited in claim 29, comprising forcing via the configuration of the center ducts and the corner ducts a portion of the air flow through a plurality of rotor ducts disposed in the rotor.

31. (currently amended) The method as recited in claim 29, comprising forcing via the configuration of the center ducts and the corner ducts a portion of the air flow through a gap defined between the rotor and an inner periphery of the plurality of laminations ~~frame~~.

32. (currently amended) The method as recited in claim 27 ~~29~~, comprising balancing the air flow through the cooling ducts via the configuration of the corner ducts and the center ~~central~~ ducts.

33. (canceled)

34. (previously presented) The lamination as recited in claim 7, wherein the at least one fin is cantilevered.

35. (canceled)

36. (canceled)

37. (new) The lamination as recited in claim 1, wherein the cooling ducts include at least one center duct disposed about a vertical or horizontal centerline of the frame.

38. (new) The lamination as recited in claim 37, wherein the center ducts are configured to further reduce the air flow through the corner ducts by approximately twelve percent in the motor during operation.

39. (new) The motor as recited in claim 13, wherein the cooling ducts are configured to force convective air flow through the rotor cooling ducts and the gap during operation such that approximately ten percent of the air flow passes through the rotor cooling ducts during operation.

40. (new) The motor as recited in claim 13, wherein the motor has a maximum operating temperature of approximately 169C when operating at 24kW with an

aggregate air flow through the stator cooling ducts, the rotor cooling ducts, and the gap of approximately 2000 cubic feet per minute.

41. (new) The motor as recited in claim 13, wherein the motor has an average operating temperature of approximately 117C when operating at 24kW with an aggregate air flow through the stator cooling ducts, the rotor cooling ducts, and the gap of approximately 2000 cubic feet per minute.

42. (new) The motor as recited in claim 18, wherein the corner ducts and center ducts are configured to force air flow through the center ducts such that approximately thirteen percent of the air flow passes through the center ducts during operation.

43. (new) The lamination as recited in claim 19, wherein the cooling ducts include at least one center duct disposed about a vertical or horizontal centerline of the frame and the at least one center duct is configured to further reduce air flow through the corner ducts by approximately thirteen percent in the motor during operation.

44. (new) The method as recited in claim 23, wherein the cooling ducts are configured to force convective air flow through the rotor cooling ducts and the gap such that approximately ten percent of the air flow is routed through the rotor cooling ducts during operation.

45. (new) The method as recited in claim 23, wherein routing the forced air flow results in the motor having a maximum operating temperature of approximately 169C when operating at 24kW.

46. (new) The method as recited in claim 23, wherein routing the forced air flow results in the motor having an average operating temperature of approximately 117C when operating at 24kW.